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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,234	11/19/2001	Avi J. Ashkenazi	P1007P1D1	1337

9157 7590 10/07/2003

GENENTECH, INC.
1 DNA WAY
SOUTH SAN FRANCISCO, CA 94080

EXAMINER

NICKOL, GARY B

ART UNIT	PAPER NUMBER
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1642

DATE MAILED: 10/07/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,234

Applicant(s)

ASHKENAZI, AVI J.

Examiner

Gary B. Nickol Ph.D.

Art Unit

1642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-39 and 46-94 is/are pending in the application.
- 4a) Of the above claim(s) 35 and 46-94 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34 and 36-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The response filed on July 17, 2003 (Paper No. 9) to the restriction requirement of March 26, 2003 has been received. Applicant has elected the species corresponding to nucleic acids encoding amino acids 25-198 of SEQ ID NO:6. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP 818.03(a)).

Claims 34-39, and 46-94 are pending.

Claims 35, 46-94 are withdrawn from further consideration by the examiner under 37 CFR 1.142(b), as being drawn to a non-elected invention. (It is noted that applicant believes that pending claims 34, 36-39, and 91-94 are readable on the elected invention—see Paper No. 9, page 2. However, nowhere do claims 91-94 recite nucleic acids encoding amino acids 25-198. Thus, claims 91-94 are withdrawn from consideration.)

Claims 34, and 36-39 are pending and are currently under examination.

Priority

A review of the parent applications (08/828,683; 08/625,328; 08/710,802) revealed priority to application No. 08/710,802 filed 09/23/1996. If applicant disagrees with any rejection of claims 34, 36-39 set forth in this office action based on examiner's establishment of a priority date of **September 23, 1996** for the instant claims in application serial number 09/993,234, applicant is invited to submit evidence pointing to the serial number, page and line where support can be found establishing an earlier priority date.

Information Disclosure Statement

References 210-233, and 235 are improperly cited and will not be printed for publication because they lack publication dates. See 37 CFR 1.98 (b) (5).

Specification

The attempt to update the priority status of the present application as set forth in the preliminary amendment of Paper No. 6 is incomplete. Applicants should indicate that U.S. Serial no. 08/828,683 filed March 31, 1997 is now U.S. Patent No. 6,469,144.

The description of the figures on page 11 (in particular Figures 1-2, 3, 5-6) in which sequences are referenced is incomplete for improper disclosure of amino acid sequences without inclusion of a sequence identifier (i.e., SEQ ID NO:). Thus, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825. This definition sets forth limits, in terms of numbers of amino acids and/or numbers of nucleotides, at or above which compliance with the sequence rules is required. Amino acid sequences as used in 37 CFR 1.821 through 1.825 are interpreted to mean an unbranched sequence of four or more amino acids.

Thus, applicant should amend the specification to insert the appropriate sequence identifier of each referred to sequence. If these sequences have *not* been previously disclosed in a CRF, applicant must provide a computer readable form (CRF) of the sequence listing, an initial or substitute paper copy of the sequence listing, as well as any amendment directing its entry into the specification, and a statement that the content of the paper and computer readable

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copies are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e-f) or 1.825(b) or 1.825(d). *Failure to supply the appropriate sequences identification numbers in response to this action will be considered non-responsive.*

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 39 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The claim is drawn to a process of using a nucleic acid molecule encoding Apo-3 to effect production of Apo-3. It is not distinctly clear how using the nucleic acid will “effect production”. Thus, there appears to be a step missing. The rejection can be obviated by amending the claim to a process of producing an Apo-3 polypeptide comprising culturing the host cell of Claim 38 and isolating said polypeptide.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 34 is rejected under 35 USC 112, first paragraph, as the specification does not contain a written description of the claimed invention. The limitation of isolated nucleic acid

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encoding Apo-3 polypeptide comprising amino acid residues **25-417** has no clear support in the specification and the claims as originally filed. Hence, this is a new matter rejection. Applicant should cancel this terminology or submit evidence pointing to the serial number, page and line where support can be found for the disputed terminology.

Claims 34, and 36-39 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The written description in this case only sets forth an isolated nucleic acid encoding Apo-3 polypeptide comprising amino acid residues 1 to 417, 25 to 198, or 338 to 417 of SEQ ID NO:6. Therefore the written description is not commensurate in scope with the claims inclusive of isolated nucleic acids encoding "a biologically active variant thereof".

To provide adequate written description and evidence of possession of a claimed genus, the specification must provide sufficient distinguishing identifying characteristics of the genus. The factors to be considered include disclosure of complete or partial structure, physical and/or chemical properties, functional characteristics, structure/function correlation, methods of making the claimed product, or any combination thereof. In this case, no such factors are attributed to the claimed variant. Further, there is no identification of any particular portion of the variant that must be conserved. Accordingly, in the absence of sufficient recitation of distinguishing identifying characteristics, the specification does not provide adequate written description of the claimed genus.

Vas-Cath Inc. v. Mahurkar, 19USPQ2d 1111, clearly states “applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession *of the invention*. The invention is, for purposes of the ‘written description’ inquiry, *whatever is now claimed*.” (See page 1117.) The specification does not “clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed.” (See *Vas-Cath* at page 1116). As discussed above, the skilled artisan cannot envision the detailed chemical structure of nucleic acids encoding the encompassed genus of variant polypeptides, and therefore conception is not achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the method of isolation. Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method of isolating it. The compound itself is required. See *Fiers v. Revel*, 25 USPQ2d 1601 at 1606 (CAFC 1993) and *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.*, 18 USPQ2d 1016.

One cannot describe what one has not conceived. See *Fiddes v. Baird*, 30 USPQ2d 1481 at 1483. In *Fiddes*, claims directed to mammalian FGF’s were found to be unpatentable due to lack of written description for that broad class. The specification provided only the bovine sequence.

Therefore, only isolated nucleic acid encoding Apo-3 polypeptide comprising amino acid residues 1 to 417, 25 to 198, or 338 to 417 of SEQ ID NO:6, but not the full breadth of the claim meets the written description provision of 35 U.S.C. §112, first paragraph. Applicant is reminded that *Vas-Cath* makes clear that the written description provision of 35 U.S.C. §112 is severable from its enablement provision (see page 1115).

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Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 34, 36-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Yu *et al.*

(US Patent No. 6,153,402; *earliest priority date is March 12, 1996*; IDS #25 and #26).

Yu *et al.* teach an isolated nucleic acid encoding amino acid residues 25-198 (see attached sequence comparison; also see page 67 of US Provisional 60/013,285 beginning at amino acid position No. 36). Yu *et al.* further teach vectors, host cells, and a process of using said host cells to effect production of the polypeptide comprising culturing the host cell (page 5, 2nd paragraph, of 60/013,285).

Claims 34, and 36-39 are also rejected under 35 U.S.C. 102(e) as being anticipated by Feldmann *et al.* (US Patent No. 5633145; *earliest priority date is May 30, 1993*)

Feldmann *et al.* teach an isolated nucleic acid encoding a biologically active variant polypeptide. (see attached sequence comparison; isolated DNA encoding the variant polypeptide is 39% similar to SEQ ID NO:6). Feldmann *et al.* further teach recombinant expression of biologically active variant polypeptides via host cells transfected with vectors (column 5).

No claim is allowed.

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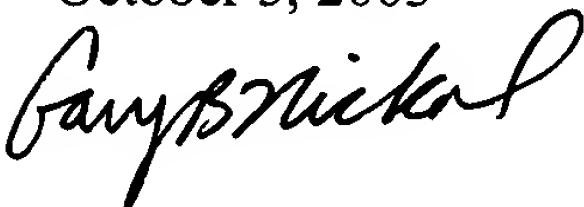
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary B. Nickol Ph.D. whose telephone number is 703-305-7143. The examiner can normally be reached on M-F, 8:30-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa can be reached on 703-308-3995. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Gary B. Nickol, Ph.D.
Examiner
Art Unit 1642

GBN
October 3, 2003

A handwritten signature in cursive script, appearing to read "Gary B. Nickol".

GenCore version 5.1.4_p5_4578
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OM protein - nucleic search, using frame_plus_p2n model

Run on: April 6, 2003, 16:28:24 ; Search time 29.3732 Seconds
(Without alignments)
1816.682 Million cell updates/sec

Title: US-09-993-234-6_COPY_25_198

Perfect score: 1038
Sequence: 1 QGCTSPRCDCAGDFHKKIG.....CPSTLGSCEPCCAVCGWR 174

Scoring table: BLOSUM62
Xgapop 10.0 , Xgapext 0.5
Ygapop 10.0 , Ygapext 0.5
Fgapop 6.0 , Fgapext 7.0
Delop 6.0 , Delext 7.0

Searched: 441362 seqs, 153338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Command line parameters:

-MODEL=frame+ p2n.model -DEV=xlh
-Q=/cgn2_1/USPTO.spool/US09993234/runat_27032003_115457_15378/app_query.fasta_1.2346
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Database : Issued_Patents_NA:*

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5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1038	100.0	1254	3	US-08-815-469-3 Sequence 3, Appl1
2	1038	100.0	1634	4	US-08-928-069-11 Sequence 11, Appl1
3	1038	100.0	1634	4	US-08-828-683A-9 Sequence 9, Appl1
4	1038	100.0	1783	3	US-08-815-469-1 Sequence 1, Appl1
5	950	91.5	1438	4	US-08-928-069-5 Sequence 5, Appl1
6	950	91.5	1438	4	US-08-828-683A-5 Sequence 5, Appl1
7	666	64.2	433	4	US-08-928-069-2 Sequence 2, Appl1
8	666	64.2	433	4	US-08-828-683A-2 Sequence 2, Appl1
9	212.5	20.5	1049	4	US-08-804-166-1 Sequence 1, Appl1
10	212.5	20.5	1049	4	US-08-910-991-1 Sequence 1, Appl1
11	211	20.3	1956	2	US-08-762-308-10 Sequence 10, Appl1
12	205.5	19.8	1301	4	US-08-804-166-7 Sequence 7, Appl1

13	205.5	19.8	1301	4	US-08-910-991-7 Sequence 7, Appl1
14	205	19.7	600	1	US-08-050-319B-47 Sequence 47, Appl1
15	205	19.7	600	2	US-08-465-982-47 Sequence 47, Appl1
16	203.5	19.6	1202	4	US-08-804-166-3 Sequence 3, Appl1
17	203.5	19.6	1202	4	US-08-910-991-3 Sequence 3, Appl1
18	203	19.6	2062	1	US-08-050-319B-24 Sequence 24, Appl1
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20	203	19.6	2161	3	US-09-106-038A-1 Sequence 1, Appl1
21	203	19.6	2161	4	US-09-505-250-3 Sequence 3, Appl1
22	203	19.6	2175	1	US-08-321-668-1 Sequence 1, Appl1
23	203	19.6	2175	1	US-08-837-941-1 Sequence 1, Appl1
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26	203	19.6	6889	1	US-08-286-740-2 Sequence 2, Appl1
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33	191	18.4	543	4	US-09-513-007-3 Sequence 3, Appl1
34	191	18.4	2440	4	US-09-513-007-1 Sequence 3, Appl1
35	190	18.3	1724	5	PCT-US96-12374-1 Sequence 1, Appl1
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37	189	18.2	1724	4	US-08-509-024-1 Sequence 1, Appl1
38	182	17.5	579	4	US-09-146-950-3 Sequence 3, Appl1
39	182	17.5	591	4	US-09-146-950-19 Sequence 19, Appl1
40	182	17.5	1596	4	US-09-146-950-17 Sequence 17, Appl1
41	182	17.5	1929	4	US-09-146-950-1 Sequence 1, Appl1
42	182	17.5	4622	4	US-08-509-024-6 Sequence 6, Appl1
43	182	17.5	4622	4	US-08-333-279-6 Sequence 6, Appl1
44	170.5	16.4	477	1	US-08-050-319B-53 Sequence 53, Appl1
45	170.5	16.4	477	2	US-08-465-982-53 Sequence 53, Appl1

ALIGNMENTS

RESULT 1
US-08-815-469-3
Sequence 3, Application US/08815469
Patent No. 6153402
GENERAL INFORMATION:
APPLICANT: Yu, Guo-Liang
APPLICANT: Ni, Jian
APPLICANT: Dixit, Vishva
APPLICANT: Gentz, Reiner L.
APPLICANT: Dillon, Patrick J.
TITLE OF INVENTION: Death Domain Containing Receptors
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: Sterne, Kessler, Goldstein & Fox, P.L.L.C.
STREET: 1100 New York Ave., NW, Suite 600
CITY: Washington
STATE: DC
COUNTRY: USA
ZIP: 20005-3934
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/815,469
FILING DATE: HERewith
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: No. 6153402 Yet Assigned
FILING DATE: 06-FEB-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/028,711
FILING DATE: 17-OCT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/013,285

FILING DATE: 12-MAR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Steffe, Eric K.
REGISTRATION NUMBER: 36,688
REFERENCE/DOCKET NUMBER: 1488.0310003/EKS/KRM
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1254 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: both
MOLECULE TYPE: cDNA
FEATURE:
NAME/KEY: CDS
LOCATION: 1..1251
US-08-815-469-3

ment Scores:
No.: 3.22e-86 Length: 1254
Score: 1038.00 Matches: 174
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 100.00% Indels: 0
DB: 3 Gaps: 0

US-09-993-234-6_COPY_25_198 (1-174) x US-08-815-469-3 (1-1254)

QY 1 GlnGlyGlyThrArgSerProArgCysAspCysAlaGlyAspPheHisLysLysIleGly 20
DB 73 CAGGGCGGCACTCGTACGCCCCAGGTGTGACTGTGCGGGTGACTTCCACAGAGATTGGT 132
QY 21 LeuPheCysCysArgGlyCysProAlaGlyHisTyrLeuLysAlaProCysThrGluPro 40
DB 133 CTGTTTGTGTCAGAGGCTGCCAGCGGGGCACTGTAAGGCCCTTGACGAGACGCC 192
QY 41 CysGlyAsnSerThrCysLeuValCysProGlnAspThrPheLeuAlaTrpGluAsnHis 60
DB 193 TGGCGCACTCCACCTGCTGTGTGTCCCAAGACACCTTCTTGCCCTGGGAGAACCCAC 252
QY 61 HisAsnSerGluCysAlaArgCysGlnAlaCysAspGluGlnAlaSerGlnValAlaLeu 80
DB 253 CATATTCTGAATGTGCCCGCTGCCAGGCTGTGATGAGCAGGCCCTCCAGGTGGCGCTG 312
QY 81 GluAsnCysSerAlaValAlaAspThrArgCysGlyCysLysProGlyTrpPheValGlu 100
DB 313 GAGAACTGTTGAGAGTGGCGGACACCGCGTGTGCTGTAAGCCAGGCTGTGTGGAG 372
QY 101 CysGlnValSerGlnCysValSerSerProPheThrCysGlnProCysLeuAspCys 120
DB 373 TGCAGGTGACCAATGTGTGAGCAGTCACTTCTACTGCCAACCACTGCTGAGACTGC 432
QY 121 GlyAlaLeuHisArgHisThrArgLeuLeuCysSerArgArgAspThrAspCysGlyThr 140
DB 433 GGGGCCCTGCACCGCCACACAGCGTACTGTGTCGCCGACAGATACTGACTGTGGACC 492
QY 141 CysLeuProGlyPheTyrGluHisGlyAspGlyCysValSerCysProThrSerThrLeu 160
DB 493 TGCCTGCTGCTCTATGACATGGCGATGGCTGCTGCTGCTGCTGCTGCTGCTGCTG 552
QY 161 GlySerCysProGluArgCysAlaAlaValCysGlyTrpArg 174
DB 553 GGGAGCTGTCCAGACGCGCTGTGCGCTGTGTGTGCTGCTGCTGCTGCTGCTGCTG 594

RESULT 2

US-08-928-069-11
Sequence 11, Application US/08928069
Patent No. 6462176
GENERAL INFORMATION:
APPLICANT: Ashkenazi, Avi J.
TITLE OF INVENTION: Apo-3 POLYPEPTIDE

NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 1 DNA Way
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Winpatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/928,069
FILING DATE: 11-Sep-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/026943
FILING DATE: 09/23/1996
ATTORNEY/AGENT INFORMATION:
NAME: Marschang, Diane L.
REGISTRATION NUMBER: 35,600
REFERENCE/DOCKET NUMBER: P1052R1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-5416
TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 1634 base pairs
TYPE: Nucleic Acid
STRANDEDNESS: Single
TOPOLOGY: Linear
US-08-928-069-11

Alignment Scores:
Pred. No.: 4.57e-86 Length: 1634
Score: 1038.00 Matches: 174
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 100.00% Indels: 0
DB: 4 Gaps: 0

US-09-993-234-6_COPY_25_198 (1-174) x US-08-928-069-11 (1-1634)

QY 1 GlnGlyGlyThrArgSerProArgCysAspCysAlaGlyAspPheHisLysLysIleGly 20
DB 161 CAGGGCGGCACTCGTACGCCCCAGGTGTGACTGTGCGGGTGACTTCCACAGAGATTGGT 220
QY 21 LeuPheCysCysArgGlyCysProAlaGlyHisTyrLeuLysAlaProCysThrGluPro 40
DB 221 CTGTTTGTGTCAGAGGCTGCCAGCGGGGCACTGTAAGGCCCTTGACGAGACGCC 280
QY 41 CysGlyAsnSerThrCysLeuValCysProGlnAspThrPheLeuAlaTrpGluAsnHis 60
DB 281 TGGCGCACTCCACCTGCTGTGTGTCCCAAGACACCTTCTTGCCCTGGGAGAACCCAC 340
QY 61 HisAsnSerGluCysAlaArgCysGlnAlaCysAspGluGlnAlaSerGlnValAlaLeu 80
DB 341 CATATTCTGAATGTGCCCGCTGCCAGGCTGTGATGAGCAGGCCCTCCAGGTGGCGCTG 400
QY 81 GluAsnCysSerAlaValAlaAspThrArgCysGlyCysLysProGlyTrpPheValGlu 100
DB 401 GAGAACTGTTGAGAGTGGCGGACACCGCGTGTGCTGTAAGCCAGGCTGTGTGGAG 460
QY 101 CysGlnValSerGlnCysValSerSerProPheThrCysGlnProCysLeuAspCys 120
DB 461 TGCAGGTGACCAATGTGTGAGCAGTCACTTCTACTGCCAACCACTGCTGAGACTGC 520
QY 121 GlyAlaLeuHisArgHisThrArgLeuLeuCysSerArgArgAspThrAspCysGlyThr 140
DB 521 GGGGCCCTGCACCGCCACACAGCGTACTGTGTGCTGCTGCTGCTGCTGCTGCTGCTG 580

09 Apr

QY 334 GlnLeuTyrAspValMetAspAlaValProAlaArgTrpLysGluPheValArgThr 353
Db 1413 ACCCTGTACGGCGGTGTGGACGGCGTCCCCCGTCGCGCTGGAAGAGTTGGTGGCGCGG 1472
QY 354 LeuGlyLeuArgGluAlaGluIleGluAlaValGluValGluIleGlyArg---PheArg 372
Db 1473 CTGGGACTGACGACGACGACGATGAGCGCGCTGGAGCTGGAAGACGGGCGCCACCTGCGC 1532
QY 373 AspGlnGlnTyrGluMetLeuLysArgTrpArgGlnGlnPro-----AlaGly 389
Db 1533 GAGGCGCAGTACAGCATGTGGCGCGCTGGCGCGCGCGCGCGCGCGCGCGAGCCACG 1592
QY 390 LeuGlyAlaValTyrAlaAlaLeuGluArgMetGlyLeuAspGlyCysValGluAspLeu 409
Db 1593 CTGAGCTGCTGGCGCGCGCTGCTCAGGACATGACCTGCTGGCTTGCCTGAAACATATA 1652
QY 410 ArgSerArgLeu 413
Db 1653 GAGGAGCGCGCTG 1664

LT 11
8-050-319B-24

Sequence 24, Application US/08050319B
Patent No. 5633145
GENERAL INFORMATION:
APPLICANT: M.Feldmann, P.W. Gray,
APPLICANT: M.J.C. Turner, F.M. Brennan
TITLE OF INVENTION: Modified human TNFalpha (Tumor
NUMBER OF SEQUENCES: 57
CORRESPONDENCE ADDRESS:
ADDRESSEE: Reed & Robbins
STREET: 635 Bryant Street
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94301
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/050,319B
FILING DATE: 10-May-1993
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Robbins, Roberta L.
REGISTRATION NUMBER: 33,208
REFERENCE/DOCKET NUMBER: 5150-0030
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 617-8999
TELEFAX: (415) 327-3231
INFORMATION FOR SEQ ID NO: 24:
SEQUENCE CHARACTERISTICS:
LENGTH: 2062 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA to mRNA
FEATURE:
NAME/KEY: CDS
LOCATION: 155..1519
US-08-050-319B-24

Alignment Scores:
Pred. No.: 1.36e-21 Length: 2062
Score: 376.00 Matches: 131
Percent Similarity: 39.09% Conservative: 50
Best Local Similarity: 28.29% Mismatches: 182
Query Match: 16.19% Indels: 100
DB: 1 Gaps: 22

US-09-993-234-6 (1-417) x US-08-050-319B-24 (1-2062)
QY 15 LeuLeuLeuValLeuLeuGlyAlaArgAlaGlnGly----- 26
Db 197 CTCCTGGAGCTGTGTGGGAATATACCCCTCAGGGTTATTGGACTGGTCCCTCAGCTA 256
QY 27 GlyThrArgSerProArg-----CysAspCysAlaGlyAspPheHisLysLysIle 43
Db 257 GGGGACAGGAGAGAGAGATAGTGTGTGCCCAAGAAATATATCCACCCTCAAAAT 316
QY 44 GlyLeuPheCysCysArgGlyCysProAlaGlyHisTyrLeuLysAlaProCysThrGlu 63
Db 317 AATTCGATTGTGCTGACCAAGTGCACAAAGAACCTACTTGTACATGACTGTCCAGGC 376
QY 64 ProCysGlyAsnSerThrCysLeuValCysProGlnAspThrPheLeuAlaTrpGluAsn 83
Db 377 CCGGGGCGAGATACGAGCTGACAGGAGGTGTGAGAGCGGCTCCTCACCCTTCAGAAAC 436
QY 84 HisHisAsnSerGluCysAlaArgCysGlnAlaCysAspGluGlnAlaSerGlnValAla 103
Db 437 CACCTCAGA--CACTGCTCAGCTGCTCCAAATGCCGAAGAAATGGTCAAGTGAG 493
QY 104 LeuGluAsnCysSerAlaValAlaAspThrArgCysGlyCysLysProGlyTrpPheVal 123
Db 494 ATCTCTTCTTGACAGTGGACCGGACACCGCTGTGTGCTGCAGAGAAGAACCACTACCG 553
QY 124 Glucys-----GlnValSerGlnCysValSerSerProPheTyrCysGlnPro 140
Db 554 CATATTGGAGTGAAGAACCTTTTCCAGTGC-----TTCAATTGCGACCTC 598
QY 141 CysLeuAspCysGlyAlaLeuHisArgHisThrArgLeuLeuCysSerArgArgAspThr 160
Db 599 TGCCCTCAAT---GGGACCGTGAC-----CTCTCCTGCGCAGAGAAACAGAAC 643
QY 161 AspCysGlyThrCysLeuProGlyPheTyrGluHisGlyAspGlyCysValSerCysPro 180
Db 644 ACCGTGTGCACCTGCCATGACGTTCTTCTTAAGAGAAACAGAGTGTGTCTCTCTGT--- 700
QY 181 ThrSerThrLeuGlySerCysProGlu-----ArgCysAlaAlaValCys----- 195
Db 701 -----AGTAACGTGAAGAAAGCCTGGAGTGCAGGAAGTTGTGCTCCTCCTGT--- 748
QY 196 -----GlyTrpArgGlnMetPheTrpValGlnValLeu 206
Db 749 ATGAGAATGTTAAGGCGACTGAGGACTCAGGACACACAGTGTGCCCCCTGCATATT 808
QY 207 LeuAlaGlyLeuValAlaProLeuLeuLeuGlyAlaThrLeuThrTyrThrTyrArgHis 226
Db 809 TTCCTTGGCTCTTGGCTTTATCCCTCCTCTTCATGTGTTAATGTATCGCTACCAACGG 868
QY 227 CysTrpProHisLys-----ProLeuValThrAlaAspGluAla 239
Db 869 ---TGGAAGTCCAAGCTTACTCCATTGTTGTGGGAAATCGACACCTGAAGAAAGAGGGG 925
QY 240 GlyMetGluAlaLeuThrProProProAlaThrHisLeuSerProLeuAspSer----- 257
Db 926 GAGCTTGAAGAACTACTACTAAGCCC-----CTGGCCCCCAAAACCAAGCTTCAGT 976
QY 258 -----AlaHisThrLeuLeuAlaProProAspSerSerGluLysIleCys 272
Db 977 CCCACTCCAGGCTTACCCGCCCTGGGCTTCAGTCCGCTGCCAGTTCACCTTCACCC 1036
QY 273 ThrValGlnLeuValGlyAsnSerTrpThrProGlyTyrProGluThrGlnGluAlaLeu 292
Db 1037 TCC-----AGCTCCACCTATACCCCGGTGAC----- 1063
QY 293 CysProGlnValThrTrpSerTrpAspGlnLeuProSerArgAlaLeuGlyPro----- 310
Db 1064 TGTCCCACTTTGCG-----GCTCCCGGACAGAGGTGGCACACCTAT 1108
QY 311 -----AlaAlaAlaProThrLeuSerPro--- 318
Db 1109 CAGGGGCTGACCCCATCTTGCAGACAGCCCTCGCTCCGACCCCATCCCAACCCCTT 1168

QY 319 -----GluSerProAlaGlySerProAlaMetMetLeuGlnProGlyProGln--- 334
 Db 1169 CAGAGTGGAGAGAGAGTCCACAGCCAGACCTAGACACTGATGACCCCGAGC 1228
 QY 335 LeuTyrAspValMetAspAlaValProAlaArgTyrPlySgluPheValArgThrLeu 354
 Db 1229 CTGTACGCCGTGTGTGAAGAGTGCCTCCGCTGTGCTGAAGGAATTCGTGCGCGCCTA 1288
 QY 355 GlyLeuArgGluAlaGluIleGluAlaValGluValGluIleGlyArg---PheArgAsp 373
 Db 1289 GGGCTGAGCGACACGAGATCGATCGGCTGAGCTGAGCTGAGAGCGCGCTGCGCGCAG 1348
 QY 374 GlnGlnTyrGluMetLeuValArgTyrPargGlnGlnGlnPro-----AlaGlyLeu 390
 Db 1349 GCGCATACAGCATGCTGGCGACCTGAGAGCGCGCGACGCGCGCGAGCGCGCTG 1408
 QY 391 GlyAlaValTyrAlaAlaLeuGluArgMetGlyLeuAspGlyCysValGluAspLeuArg 410
 Db 1409 GAGCTGCTGGAGCGGCTGCTCCGCGACATGAGACCTGCTGGCTGCTGAGAGACATCGAG 1468
 QY 411 SerArgLeu 413
 Db 1469 GAGCGCTT 1477

RESULT 12

US-08-465-982-24
 : Sequence 24, Application US/08465982
 : Patent No. 5863786

GENERAL INFORMATION:

APPLICANT: M.Feldmann, P.W. Gray,
 APPLICANT: M.J.C. Turner, F.M. Brennan
 TITLE OF INVENTION: Modified human TNFalpha (Tumor
 TITLE OF INVENTION: Necrosis Factor alpha) Receptor
 NUMBER OF SEQUENCES: 57
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Reed & Robbins
 STREET: 635 Bryant Street
 CITY: Palo Alto
 STATE: California
 COUNTRY: USA
 ZIP: 94301

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patentin Release #1.0, version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/465,982
 FILING DATE:

CLASSIFICATION:

PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US/08/050,319
 FILING DATE: 10-May-1993

ATTORNEY/AGENT INFORMATION:

NAME: Robbins, Roberta L.
 REGISTRATION NUMBER: 33,208
 REFERENCE/DOCKET NUMBER: 5150-0030
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (415) 617-8999
 TELEFAX: (415) 327-3231

INFORMATION FOR SEQ ID NO: 24:

SEQUENCE CHARACTERISTICS:
 LENGTH: 2062 base pairs
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 DB: 2 Gaps: 22

US-09-993-234-6 (1-417) x US-08-465-982-24 (1-2062)

QY 15 LeuLeuLeuValLeuLeuGlyAlaArgAlaGlnGly----- 26
 Db 197 CTCTGAGAGCTGTGTGGGAATATACCCCTCAGGGGTATGTGACTGTCCCTCACCCTA 256
 QY 27 GlyThrArgSerProArg-----CysAspCysAlaGlyAspPheHisLysLysIle 43
 Db 257 GGGGACAGGAGGAGAGAGATAGTGTGTCCCAAGGAAATATATCCACCCCTCAAAAT 316
 QY 44 GlyLeuPheCysCysArgGlyCysProAlaGlnHisTyrLeuLysAlaProCysThrGlu 63
 Db 317 AATTGATTTTCTGTATACCAAGTCCACAAAGAAACCTACTTGTACATGACTGTCCAGGC 376
 QY 64 ProCysGlyAsnSerThrCysLeuValCysProGlnAspThrPheLeuAlaTyrGluAsn 83
 Db 377 CCGGGCAGATACGAGACTGACAGGAGTGTGAGAGCGGCTCCTTCACCCGCTCAGAAAAC 436
 QY 84 HisHisAsnSerGluCysAlaArgCysGlnAlaCysAspGluGlnAlaSerGlnValAla 103
 Db 437 CACCTCAGA---CACTGCTCAGCTGTCCAAATGCCGAAAGAAATGGCTCAGGTGGAG 493
 QY 104 LeuGluAsnGlySerAlaValAlaAspThrArgCysGlyCysLysProGlyTyrPheVal 123
 Db 494 ATCTCTTCTGTGCACAGTGGACCGGACACCGTGTGTGCTGCAGAGAAACAGTACCGG 553
 QY 124 GluLys-----GlnValSerGlnCysValSerSerSerProPheTyrCysGlnPro 140
 Db 554 CATTATTGAGTGAATAACCTTTCCAGTGC-----TTCAATTGCAGCCCTC 598
 QY 141 CysLeuAspCysGlyAlaLeuHisArgHisThrArgLeuLeuCysSerArgArgAspThr 160
 Db 599 TGCCTCAAT---GGACCGGTGCAC-----CTCTCCTGCCAGAGAAACAGAAC 643
 QY 161 AspCysGlyThrCysLeuProGlyPheTyrGluHisGlyAspGlyCysValSerCysPro 180
 Db 644 ACCGTGTGCACCTGCCATGACGTTCTTCTTAAGAGAAACAGAGTGTGTCTCTCTG 700
 QY 181 ThrSerThrLeuGlySerCysProGlu-----ArgCysAlaAlaValCys----- 195
 Db 701 -----AGTAACTGTAGAAAAAGCCTGAGTGCAGAGAGTGTGTGCTACCCAG 748
 QY 196 -----GlyTyrPargGlnMetPheTyrValGlnValLeu 206
 Db 749 ATTGAGATGTTAAGGCACTGAGGACTCAGGACACACAGTGTGTGCCCTGTCTCAT 808
 QY 207 LeuAlaGlyLeuValValProLeuLeuLeuGlyAlaThrLeuThrTyrArgHis 226
 Db 809 TTCTTTGTCTTTTGCCTTTATCCCTCTCTTCATTTGTTAATGTATCGCTACCAACGG 868
 QY 227 CysTrpProHisLys-----ProLeuValThrAlaAspGluAla 239
 Db 869 ---TGAAAGTCAAGCTCTACTCTCATTTGTTGTGGAAATCGACACCTGAAAAGAGGG 925
 QY 240 GlyMetGluAlaLeuThrProProProAlaThrHisLeuSerProLeuAspSer----- 257
 Db 926 GAGCTTGAAGAACTACTACTAAGCCC-----CTGGCCCCAAACCAAGCTTCAGT 976
 QY 258 -----AlaHisThrLeuLeuAlaProAspSerSerGluLysIleCys 272
 Db 977 CCCACTCAGGCTTACCCCCACCCCTGGGCTTACAGTCCGCCAGTTCACCTTCACC 1036
 QY 273 ThrValGlnLeuValGlyAsnSerTyrThrProGlyTyrProGluThrGlnGluAlaLeu 292
 Db 1037 TCC-----AGTTCACCTATACCCCGGTGAC----- 1063